

FOREIGN BODY IN THE IMMATURE VAGINA

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DISCUSSION by Alice F. Maxwell, M. D., San Francisco;
Roy Fallas, M. D., Los Angeles.

IN spite of the rarity of this condition as a clinical entity, its discussion is deemed important for two reasons: First, because its occurrence masquerades as vaginitis or vulvovaginitis and is mistaken for this condition, when the patient is needlessly and harmfully treated as a victim of gonorrhea; and, second, because in each of four instances there has been noted a bloody component to the vaginal discharge, which, if not pathognomonic, is highly suggestive. Its occurrence is here signalized as of notable importance in differential diagnosis.

CLINICAL MATERIAL

Out of a series of 319 immature females treated for vulvar and vaginal disorders, 266 presented vaginal discharges requiring complete investigation. Out of this group, four, or .015 per cent, were proved to have a retained foreign body in the vagina (Fig. 1). Although three of the patients had formerly been seen by physicians (one patient by two doctors), the correct diagnosis had in no case been suggested prior to our investigation. Two of these children had had active treatment in the form of vaginal instillations and irrigations over a period of weeks to months. In one case a supposedly definite diagnosis of gonorrhea had been made, with the psychic trauma to child and family which inevitably follows. In three of these individuals, smears had been taken repeatedly—this procedure apparently not in any case indicating the proper diagnosis. It is hardly necessary to signalize the harm and injustice which may occur as a result of such faulty diagnosis in this connection.

These children ranged in age from three to twelve years. Two were definitely from the underprivileged group, one in the high middle class, another from a family of some social standing. It is of interest that, whereas a reasonably careful psychological study was made in each instance, and in three instances a fairly complete past history, including environmental factors and excellent follow-up was available, only one of the three appeared to be the "naughty little girl" type. The other two were, so far as we could determine, ingenuous, well behaved, and entirely above suspicion of conscious wrongdoing. These children—and, incidentally, a number of others whom we have seen in the course of other conditions involving the genitalia—were in all respects normal, apparently in this instance motivated by curiosity or an exploratory bent, such as dictates the insertion of foreign bodies into the nose or the ear. In no instance had the child announced the possibility to its parents. From two of the children, when the matter was brought to their attention, an apparently frank admission was obtained. A third child had been a problem child to its parents for something over a year. She was a confirmed mastur-

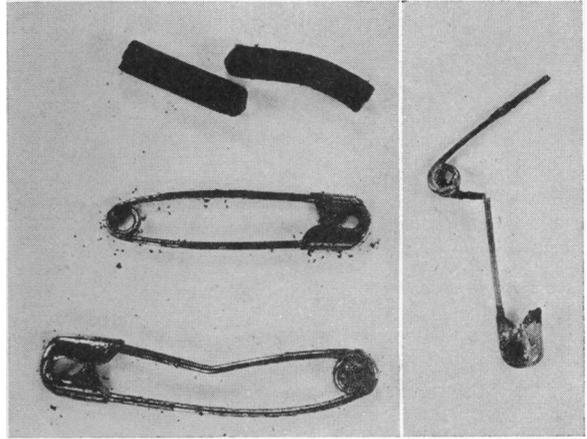


Fig. 1.—Foreign bodies removed: (a, upper left) a red crayon from a child aged five—duration a few weeks; (b, middle left) a safety pin from a child aged twelve—duration unknown; (c, lower left) a safety pin from a child three years of age—duration at least three months; (d, right) a safety pin removed from the vagina of a child aged seven. Note erosion, loss of tip. Safety pin had to be bent and removed open. There was definite embedding, with areas of vegetation. Duration at least eight months, possibly two years. Recovery immediate and complete.

bator, had been frequently involved with little boys in the neighborhood, and apparently had a definite fixation in relation to her genitalia. Interestingly enough, this child consistently denied that a safety pin could have been inserted into her vagina even when the object was produced. This was an older child, seen five years ago, at the age of twelve, and has since acquired gonorrhea, had an illegitimate pregnancy, and undergone a severe postabortal infection. The fourth patient was seen so briefly—merely for the removal of the foreign body—that the psychologic background could not be investigated.

DIAGNOSIS

A single observation, consistent in each of these four instances, by itself justifies the publication of this report. In each case there was a definite bloody component to the vaginal discharge noticed almost from the beginning of the complaint. In other respects the clinical picture differed so little as to be routinely mistaken for typical so-called vulvovaginitis. That the admixture of blood in the vaginal discharge is not common to infections of the immature vagina—even in virulent acute gonorrheal infections—is attested by our observations in 266 instances. Rarely (in only three instances) did we note slight transient bleeding due to demonstrable vulvar erosion or cracking. This condition was not persistent and so was quickly amenable to local treatment. The only other instance of persistent serosanguinous vaginal discharge occurred in a child, age 13, who had a virulent trichomonas vaginitis. Occasional instances of transient cervical oozing due to instrumentation have been noted. Otherwise, persistent serosanguinous vaginal discharge has been restricted exclusively to the cases of foreign body. We believe that the observation is one of considerable importance in this connection, especially since the diagnosis seems to be so easily overlooked on the basis of commonly recognized symptoms.

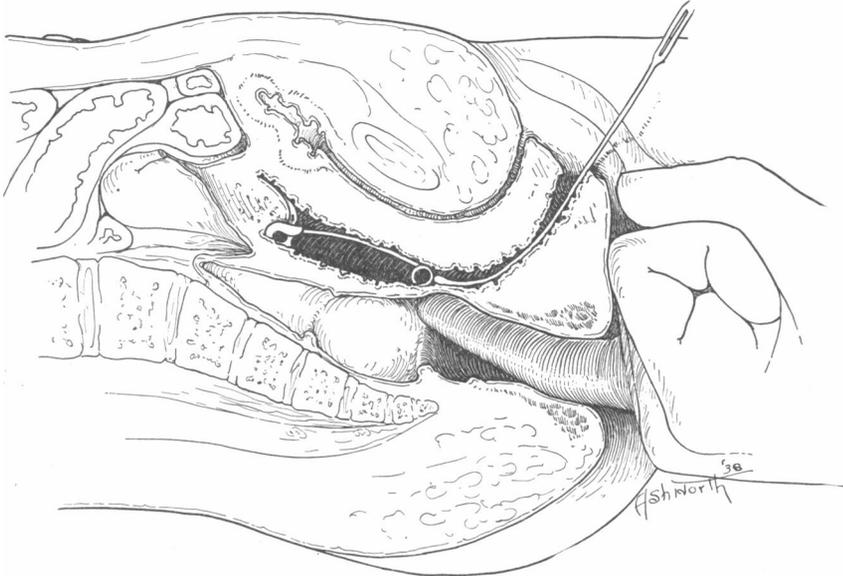


Fig. 2.—Schematic drawing illustrating diagnostic method and methods of removal, with little finger of left hand in the rectum. The rectal finger greatly facilitates location of the foreign body and appears definitely to distract the child's attention from the vaginal manipulation. Small forceps may be used for extraction in the same way.

In our entire experience we have never obtained an admitted or suspected history of foreign body prior to its diagnosis. The history, therefore, except in so far as masturbation or vaginal manipulation may indicate the type of child, is seldom helpful. The presence of a profuse, irritating, non-specific vaginal discharge, not affected by the usual type of treatment, should cause immediate suspicion. If beyond this there is a persistent bloody component to the discharge, foreign body should be suspected. It is our practice to investigate the vagina under direct vision through a small urethroscope in every instance where routine treatment is not reasonably effective. Should such an instrument not be available, or the patient's reactions unfavorable, the following method will be of assistance: A small caliber, dull-nosed metal probe may be introduced into the vagina without notable disturbance. Should there be a metal foreign body, the probe will be fairly felt to click against the metal. This sensation is almost unmistakable, but may occasionally be simulated by the catching of the probe in the vaginal crypt with its sudden escape. If the foreign body is not metallic, the method is not helpful, although in one case (where a red crayon had been inserted) a small particle of the colored material was brought away on the end of the probe. A more effective method which we have devised is as follows (Fig. 2): The little finger of the left hand, well lubricated, is inserted into the rectum. The metal probe is then carefully carried up the vaginal wall, its course being followed by the finger in the rectum. Irregularities and impediments to the passage of the probe may then be investigated. In two instances, foreign bodies have been clearly outlined between the probe and the rectal finger—once after the passage of the probe alone had not revealed the object. Diagnosis is thus made easily and relatively painless. It should be pointed out that this procedure seldom

alarms or distresses the patient, the probe being passed more easily with the rectal finger in place; whereas the urethroscope is occasionally difficult to use without heavy restraints or anesthesia. This method is particularly valuable in smaller children.

TREATMENT

In older children (say five years or over), who are reasonably cooperative, the removal of a foreign body may be undertaken without anesthesia. In our patient, age three, a large encrusted safety pin was removed without complaint. A special grasping instrument, such as is used in the bladder or the kidney pelvis, may be used through the vaginoscope.

In general, however, a rectal finger will guide a small hemostat successfully to the object, which may be grasped and removed with care. Should the patient be uncooperative, it is, of course, highly desirable to induce anesthesia with nitrous oxid or ethylene. In the case of metal objects, particularly safety pins (which seem popular), care must be exercised in relation to whether or not the pin is open. This should be suspected, particularly if the history is of long duration. In a recent instance, for example, the protected end of the pin had eroded away completely, so that the pin had sprung and presented itself with the open end downward. It could only be removed by bending, and with some injury to the soft tissues (Fig. 1). In two instances where we found metallic parts of the safety pin partially embedded in the vaginal wall, their removal entailed considerable bleeding. The vegetations in the areas involved, however, have almost immediately absorbed without further complication.

Intravaginal instillations or douches have not been used in our four patients following the removal of the foreign body. The vagina was distended with bland antiseptic ointment in two of the children. In all instances, within two or three days, the vaginal discharge has decreased. Within a week, except in one instance, it has disappeared; the external irritation has also disappeared, and the condition has returned to normal within two weeks. Visual examination has shown complete restoration of the vaginal walls, and a normal vaginal reaction, together with normal flora, has returned.

It should be pointed out that the psychic composure of the patient appears to be little upset except by her reaction to alarm or deep concern on the part of the parents or physician. It is our impression that the management of this condition should be surrounded by an air of nonchalance, such as accompanies any other painful and unpleasant medical procedure. The morbid aura

which is so often allowed to invest an episode of this sort is particularly harmful in childhood. Since the child's attention is already no doubt somewhat centered upon its genital apparatus, it is my belief that the lightest possible psychic touch is required. As we have stated before in relation to vaginitis, any sort of complicated psychotherapy seems more indicated for the parents than for the affected child.

IN CONCLUSION

1. Because out of four cases of foreign body in the vagina of female children (0.015 per cent of 319 patients examined for vaginal and vulvar complaints), three were previously unrecognized by physicians, two of the patients being strenuously treated for vaginal infections, one stigmatized with an incorrect diagnosis of gonorrhoea, this clinical note is deemed justified.

2. The constant presence of a persistent bloody component to the vaginal discharge—rarely noted in other conditions—is established as an important contribution to early diagnosis.

3. A discussion of diagnosis and treatment is given in sufficient detail to be helpful.

4. Psychological factors are briefly considered.

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DISCUSSION

ALICE F. MAXWELL, M.D. (University of California Hospital, San Francisco).—This is a report of particular interest since it emphasizes two important points, namely, the relative infrequency with which foreign bodies are found in the vagina of children, and secondly, the necessity of an accurate diagnosis of a purulent bloody vaginal discharge in individuals of any age.

The presence of foreign bodies (peas, beans, buttons, etc.) in the aural and nasal passages of children is so common as to excite little comment. The assortment of objects which have been removed from the bladder of individuals, usually adult, arouses speculation as to the ingenuity and disregard of pain which permitted the introduction of safety pins, crochet hooks, gauze, rocks, etc. The rectum has, likewise, served as a receptacle for foreign bodies. The relative ease of accessibility of the vagina, and the fact that even in children the structures in its neighborhood are associated with sensations of sexual stimulation (judged by the frequency of masturbation), would justify the assumption that self-exploratory investigation of children should lead to the discovery of the vaginal canal frequently. The reports in the literature of such occurrences are rare, yet the careful observations of the author disclosed this situation in four of 319 children whom he had under observation for vaginitis.

It is difficult to explain a physician's negligence in establishing a diagnosis and casual attitude in treating a child with a bloody vaginal discharge, since it has long been recognized that this sign usually indicates a malignant lesion in the pelvic organs. With this possibility in mind, a most thorough investigation of the pelvic organs is imperative: had a careful examination been made in three children, the diagnosis would have been obvious. It is not unreasonable to expect that the medical attendant would have an investigative urge at least comparable to that of his young patients.

The author is to be congratulated for directing our attention to an interesting problem and for emphasizing the necessity of establishing an accurate diagnosis.



ROY FALLAS, M.D. (1930 Wilshire Boulevard, Los Angeles).—Although, as stated by the author, a foreign body in the immature vagina is very uncommon, all gynecologists should be properly equipped for making a careful visual examination as painlessly as possible, in all cases of persistent vaginal discharge.

It has been my practice to use a small Kelly endoscope, through which topical applications can be made, as well as foreign bodies appropriately dealt with.

The wonder is that foreign bodies are not more frequently found, particularly when it is realized that negro children, at least in certain parts of this country, are taught by their mothers the art of masturbation for the purpose of keeping them from crying and being a nuisance to their parents.

Doctor Schaffler has, I believe, offered an ingenious method of investigation by probing the vagina over a finger in the rectum. However, in the case of a metallic foreign body, its presence or absence can be readily and painlessly established by an x-ray picture.

I believe that in all cases of persistent, chronic, vaginal discharge, the possibility of a foreign body should be ruled out.

DIPHThERIA*

A STATISTICAL REPORT OF 3,344 CASES

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IN consonance with other cities in these United States, the morbidity and mortality of diphtheria in San Francisco have undergone considerable fluctuations over the period 1917–1937, inclusive.

SAN FRANCISCO DIPHThERIA MORBIDITY RATES IN DIFFERENT YEARS

The morbidity in 1917 showed a case rate of 172.0 per 100,000. The rate, however, rose to 309.84 in 1923, the highest ever recorded, and the periods 1921–1924, inclusive, could be considered epidemic years for diphtheria, or, at least, those in which the disease offered the most difficulties for the establishment of control measures. In 1925, a decided downward trend prevailed, and the decline in rate per 100,000, from 108.02 in 1925 to 7.65 in 1937, is more than gratifying to health officials. The mortality rate per 100,000 in 1917 was 13.60, and reached its highest in 1923—26.84. The decline in mortality rate noted in 1925 to 6.41 has been steadily maintained until in 1934 the all-time low of 0.15 was reached; and in 1935 and 1936 the rate was 0.58. In 1937, however, due to a sharp outbreak of the disease in adults in several subnormal and crowded lodging houses, and delay in reporting and hospitalization, the rate rose to 1.15. The number of cases reported for 1937 was fifty-three, and if the measures for control now in use are maintained, this disease as a clinical entity will probably disappear in San Francisco, or will have reached the terminology of the irreducible minimum. The importance of immunization with toxin-antitoxin or toxoid has been stressed in such recorded reduction of morbidity. Immunization was started in San Francisco about 1920. It was only routinely adopted, however, by the then San Francisco Board of Health for the children in the Well-Baby Centers and in the schools in May, 1924. The number of school and preschool children immunized has increased each year since 1924, when the number recorded was 1,605. In 1937, the immunized group was 4,701. This figure does not, however, present a fair picture of immunization.

* From the Isolation Division, San Francisco Hospital.